

MRI- Magnetic Resonance Imaging

What is an MRI?

Magnetic resonance imaging (MRI) is a test that uses powerful magnets, radio waves, and a computer to make detailed pictures inside your body. An MRI does not use radiation like x-rays and CT scans. MRI machines are shaped like hollow tubes with openings at each end. You will lie on a narrow table that slides into the tube. During testing the magnet will spin around the tube to collect images needed of the specific area to the body being scanned. Some MRI machines are open that accommodate patients that suffer from claustrophobia and severe obesity.

Why is an MRI performed?

Your doctor may order an MRI to help diagnose disease, injury, or to monitor treatment progression. MRIs can be done on different parts of your body like brain, heart, blood vessels, bones, joints, and other organs.

How do I prepare for an MRI?

No metal is allowed in the MRI room due to the magnetic field.

The following items need to be removed prior to entering the MRI room:

- Cell phone
- Coins
- Credit cards
- Dentures
- Eyeglasses
- Hearing aids
- Keys
- Pens
- Pocket knives
- Underwire bra
- Watch
- Wig

The following items could interfere with testing:

- Aneurysm clips
- Artificial heart valves
- Body piercings
- Breast tissue expanders
- Cochlear implants
- Drug pumps and patches
- Eye surgery that used magnets or springs
- Fillings and other dental work

- Implanted nerve stimulator
- Insulin pump
- Metal fragments, such as a bullet or shrapnel
- Metal joints or limbs
- Pacemaker or implantable cardioverter-defibrillator (ICD)
- Pins or screws
- Tattoos with ink that contain metal. Tattoos must be at least 8 weeks old and completely healed.

You may be asked to provide documentation for certain implanted devices to help ensure patient safety.

Wear loose, comfortable clothing that does not have snaps or other metal fasteners. You may need to wear a gown during testing.

MRI's of the abdomen with contrast require no eating or drinking 4 hours prior to being scanned, with the except of small sips of water and necessary medications.

In some people, contrast can cause side effects such as:

- Feeling of warmth or flushing
- Metallic taste
- Lightheadedness
- Nausea
- Itching
- Hives

Patients with a history of hypertension, diabetes, kidney problems, or over age 70 will need to have recent labs within 30 days of scan to check BUN and creatinine levels to ensure it is safe to receive contrast. Continue Reading Below

What happens during the test?

Before some MRIs, you'll get contrast dye into a vein in your arm or hand. This dye helps the doctor more clearly see structures inside your body. The dye often used in MRIs is called gadolinium. It can leave a metal taste in your mouth.

You will lie on a table that slides into the MRI machine. Straps might be used to hold you still during the test. Your body might be completely inside the machine. Or, part of your body may stay outside the machine.

You might hear a loud thumping or tapping sound during the test. This is the machine creating energy to take pictures inside your body. You can ask for earplugs or headphones to muffle the sound.

You might feel a twitching sensation during the test. This happens as the MRI stimulates nerves in your body. It's normal, and nothing to worry about.

How long does an MRI take?

The MRI scan should take about 45-75 minutes depending on which body part needs to be scanned.

Who shouldn't get an MRI?

Pregnant women should not get an MRI during their first trimester unless they absolutely need the test. The first trimester is when the baby's organs develop. You also shouldn't get contrast dye when you're pregnant. If the benefit will outweigh the risk, your physician can pre-approve the scan but a consent will need to be signed.

Don't get contrast dye if you've had an allergic reaction to it in the past or you have severe kidney disease.

Screening will be done prior to testing by a specially trained technologist who will help determine patient safety and eligibility for questionable concerns.

The MRI table has a maximum capacity to hold weight of 440 pounds, however entry into the MRI may depend on body circumference. The circumference must be less than 60cm.

How will my results be communicated with me?

After the radiologist has reviewed and interpreted your images, a report will be sent to the ordering physician. Your physician will explain the meaning of your test results with you and next steps for your treatment and care plan.

How do I get a copy of my results?

Imaging results can be downloaded onto a CD for you to keep or share with other physicians. At times, electronic medical records allow other physicians to view the images if they have the same electronic system. Please allow 24 hours for film requests. Contact the imaging department for all film requests 540-785-7200. Films can be picked up at requested location. Charges may apply when requesting personal records.

Additional considerations:

It is not recommended to bring children under the age of 14 to your appointment unless accompanied by another responsible adult.

If appointments must be cancelled, please give us 24 hours' notice. If this is not possible, notify the office ASAP that you are not able to keep the appointment.

Please arrive 10-15 mins prior to appointment to allow time for the check-in process and appropriate questionnaires to be completed.